

Subject: Public Comment

Resent-From: Islandereast.Comments@noaa.gov

Date: Wed, 14 May 2003 18:19:46 -0700 (PDT)

From: leah lopez <leahlopez3@yahoo.com>

To: IslanderEast.comments@noaa.gov

To whom it may concern


Please find attached a copy of Save the Sound's comments on the Islander East appeal.

Sincerely,
Leah Lopez

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May 14, 2003

Donald Evans, Secretary of Commerce
c/o Office of the General Counsel for Ocean Services
National Oceanic and Atmospheric Administration
U.S. Department of Commerce
1305 East-West Highway
Silver Spring, MD 20910

Re: Appeal by Islander East Pipeline Company, L.L.C.

Dear Secretary Evans:

I am writing to express Save the Sound's strong opposition to the proposed Islander East Pipeline Project.

Save the Sound is a 30 year-old membership non-profit organization dedicated to the restoration, protection and appreciation of Long Island Sound and its watershed through advocacy, education and research. We have offices in both the states of Connecticut and New York.

We are asking you to deny the appeal from Islander East Pipeline Company, L.L.C.

We agree with the determination made by the Connecticut Department of Environmental Protection (CT DEP), that the Islander East Pipeline project is inconsistent with the federal Coastal Zone Management Act.

Long Island Sound is a fragile, yet vital, estuary that has little reserve for damage. The area of the Sound east of New Haven, along the proposed route for Islander East, contributes significantly to the overall health and water quality of Long Island Sound and damage to its seafloor from such intrusive construction is likely to have significant long-term impacts. In addition, pipeline construction will destroy hundreds of acres of pristine shellfish beds, a loss that will be impossible to fully restore. Finally, the pipeline represents a non-water-dependent use of an area that should be reserved for water-dependent uses such as the existing shell-fishing activities and marine transportation channel.

In sum, the environmental damage from Islander East will have a long-term significant adverse impact on Long Island Sound. Please deny the appeal by Islander East.

Please do not hesitate to contact me for further information or clarification. Thank you for the opportunity to comment on this appeal.

Respectfully submitted,

Leah Lopez
Staff Attorney, Save the Sound
Norwalk, Connecticut

Subject: Menunkatuck Audubon Comments Regarding Islander East's Appeal

Resent-From: Islandereast.Comments@noaa.gov

Date: Thu, 15 May 2003 19:28:14 -0700 (PDT)

From: Suzanne Botta <sbotta@mail.yellowstone.net>

To: IslanderEast.comments@noaa.gov

To Whom It May Concern

Please find attached the comments from Menunkatuck Audubon Society regarding Islander East appeal. The attachment is a pdf. If you have difficulties with the attachment, it can also be sent as a word or text document.


I can be reached at home: (203)315.4816 or work (203)483.7287 x207 and via email at: sbotta@mail.yellowstone.net

Thank you for your time

Suzanne Botta, President
Menunkatuck Audubon Society

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MENUNKATUCK AUDUBON SOCIETY

A Chapter of National Audubon Society

Thursday May 15, 2003

Dear Secretary Evans:

My name is SuZanne Botta and I am President of the Menunkatuck Audubon Society (Menunkatuck). Menunkatuck is the chapter of National Audubon Society (National) serving the Connecticut shoreline towns of West Haven, New Haven, East Haven, Branford, Guilford and Madison.

Today I am writing on behalf of Menunkatuck's 700+ members. With 6 municipalities including urban, suburban and rural areas, Menunkatuck's membership represents a broad range of interests, political affiliations, avocations and occupations. Although consensus among even the smallest groups can be difficult to obtain, we can all agree that the Connecticut Department of Environmental Protection (CT DEP) made the correct decision in denying Islander East a Coastal Zone Management Act (CZMA) Federal consistency.

The breadth and variety of problems with the Islander East application have not yet been adequately addressed as the Final Environmental Impact Statement (FEIS) lacked vital information as indicated through comments made by other Federal Agencies and Departments including the U.S. Fish and Wildlife Service, Department of the Interior, and Environmental Protection Agency. Each agency has entered into the record their concerns regarding the lack of literal, quantifiable gas demands information for the region. Additionally, there are serious concerns and many unanswered questions regarding both short- and long-term impacts on federally endangered species such as the piping plover and least tern as well as federally protected species such as harbor and grey seals (protected under the Marine Mammal Protection Act of 1972).

Further, as wetland commissioner and a duly authorized agent in my local municipality, my mind boggles at the vast number of wetland crossings this pipeline will make, as well as the effect it will have on a large number of water bodies. Additionally, I am appalled at Islander East's lack of a properly conceived mitigation plan.

We believe it would be wholly inappropriate for the "Secretary to determine that the proposed activity is 'consistent with the objectives' of the CZMA." The function of this particular pipeline would be to serve the gas-utilizing constituents on Long Island. Because there is a lack of literal and quantifiable gas demand information in that market, an informed decision cannot be made about the long-term needs of the region. Would the region be best served by a dozen cross-Sound cables and pipelines or by one or two larger pipelines with more capacity? This question has not been answered nor have adequate *prudent and feasible alternatives* been offered. In order to pursue a rational of "National Interest", there must be a variety of prudent and feasible alternatives available to the appropriate decision making agencies, e.g. the CT DEP and the Department of Commerce. This is currently not the case.

The federally supported Long Island Sound Comprehensive Conservation and Management Plan (CCMP) (approved 1994, affirmed 1996 and 2003) and the Connecticut Coastal Management Act (1980) have been developed and implemented because there are *“complex issues raised by the scarce resources and competing uses of Connecticut’s coast...”* (Living on the Shore: Rights and Opportunities p 14) this requires active and ongoing planning and management by the states of Connecticut, New York and U.S. Environmental Protection Agency. Connecticut’s Coastal Management program was designed with an *“emphasis on balancing protection of fragile coastal resource of the Long Island Sound ecosystem with sustainable economic uses of the shoreline”* (Connecticut’s Coastal Management Program Overview).

Sustainable management means we can no longer afford a piece-meal approach to utility crossings in Long Island Sound. Menunkatuck members, whether doctors, teachers, scientists, secretaries, police officers, consultants or retirees, will attest to the importance of proper prior planning. Moving forward with major projects without a prior knowledge and understanding of existing assets, conditions, consequences and alternatives would be foolhardy at best. Allowing Islander East to proceed with their pipeline construction without considering the ramifications of the cumulative effects of the additional proposals to come (including expansions, i.e. Islander East prospect of “Looping the pipeline”) borders on gross negligence on the part of any agency.

If we are to have proper energy distribution in the tri-state area, Northeast and throughout the country, permit applications must be judged on their merits. The Islander East pipeline does not meet the legitimate requirements set forth in the Coastal Management Act, a statute approved by the Federal Government in 1980. Long Island Sound is the most heavily used estuary in North America. It is 1,310 square miles, 110 miles long and approximately 20 miles wide and has been designated an Estuary of National Significance through the National Estuary Program. The Sound is an estuary with finite resources and capacity for recovery from construction. Yet “the state’s coast supports diverse industries including a \$50 million shellfish industry, tourism, marine commerce, and *defense-related manufacturing...* The Sound provides feeding, breeding, nesting, and nursery areas for a diversity of plant and animal life, and contributes an estimated \$5.5 billion per year to the regional economy from boating, commercial and sport fishing, swimming and sight seeing.” (National Estuary Program, February 2002 Fact Sheet)

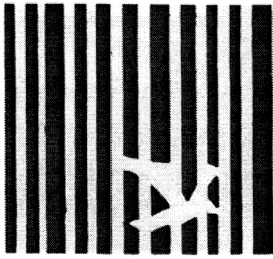
More than 8 million people live in the Long Island Sound watershed. The associated development of this watershed has increased some types of pollution, altered land surfaces, reduced open spaces and restricted access to the Sound. This reinforces our position that there is a greater need than ever to rely on the expertise of local scientists, professionals, and applicable agencies to gauge what types of activities the Sound can withstand and still remain **viable** for future use, whether commercial or recreational.

There is a profound National Interest in balancing utility construction with economic and environmental concerns. It is in the interest of us all to have a healthy and viable Long Island Sound and protect endangered species such as the piping plover and least tern. Certainly projects to shore-up energy reliability in the Northeast are critical, but these projects must be done properly, not on a first come, first serve basis. Therefore, we respectfully request Islander East’s appeal be denied.

Thank you for your time and consideration.



SuZanne Botta, President
Menunkatuck Audubon Society



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P.O. Box 254
Branford, CT 06405

*"The mission of the Branford Land Trust
is to preserve open space in Branford and
to promote our community's appreciation
of Branford's diverse natural features."*

June 1, 2003

Mr. Branden Blum
Senior Counselor
c/o Office of Assistant General Counsel for Ocean Services
National Oceanic and Atmospheric Administration
U.S. Department of Commerce
1305 East-West Highway
Room 6111, SSMC-4
Silver Spring, MD 20910

Dear Mr. Blum:

The Branford Land Trust is submitting comments about Islander East's appeal to the Secretary of Commerce of the finding of inconsistency with the Connecticut Coastal Zone Management Plan. I note that these comments are about the original plan submitted to Connecticut Department of Environmental Protection (DEP), not to the continuously evolving modifications to the project design that Islander East is discussing with DEP. The Branford Land Trust reserves the right to comment on the environmental impacts of any changes in the project design that may occur before the end of the public comment period.

Thank you for your consideration.

Sincerely,

Bill Horne
Chair, Natural Resources Committee
Branford Land Trust

Comments by Branford Land Trust
on the appeal by Islander East of the finding of inconsistency with
the Connecticut Coastal Zone Management Plan

Summary

These comments address arguments made by Islander East in its initial memorandum to the Department of Commerce, dated February 10, 2003, and discuss why these arguments are either factually inaccurate or insufficient to support a decision by the Secretary of Commerce to uphold Islander East's appeal. The comments will address the following points:

- **The contribution of the project to national security**
 - The Department of Defense and U. S. Army Corps of Engineers find no national defense or security interest that requires the Islander East project.
 - The project continues the dependence on foreign energy sources.
 - The Islander East project does not significantly increase the reliability of gas delivery to Long Island.
- **The need for the project**
 - The market demand provided by Islander to justify the project is overstated.
 - Two pipelines already serve the natural gas market on Long Island, providing the desired pipeline-to-pipeline competition sought by the Federal Energy Regulatory Commission in granting certification to the Islander East project.
 - Islander East does not provide a unique access to Sable Island gas.
- **Environmental impacts of the project**
 - Construction of the pipeline will cause unacceptable damage to coastal and marine resources in an area of exceptional marine habitat diversity.
- **Alternatives available for filling the need**
 - At least two alternatives could provide increased supplies of gas to Long Island at less environmental cost.
- **Opinions of other regulatory agencies**
 - The Connecticut Siting Council did not approve the Islander East project.

The project is not required for national security

Islander East argues in its appeal that the project will further the interests of national security by strengthening the energy infrastructure in the important Connecticut/New York area and by enhancing the country's efforts to achieve energy self-sufficiency. In contrast to Islander East, however, the Department of Defense and the U. S. Army Corps of Engineers have stated in their comments on Islander East's appeal that no national defense or security issues have been identified that would be impaired if the project did not go forward as proposed. Thus, Islander East appears to be wishfully thinking that what is important for Duke Energy and KeySpan is also important for the country's security.

Furthermore, the project does not enhance the achievement of energy self-sufficiency. As stated, the project is designed to deliver Eastern Canadian gas to a US market, merely substituting one foreign energy source for another. (Canadians would be surprised and probably shocked by the suggestion that Sable Island gas is not a foreign energy source.) Increasing the use of renewable energy technologies (solar, wind, energy

recovery from wastes) and increasing energy efficiency and conservation will enhance the country's energy self-sufficiency. Increasing the use of foreign natural gas will not.

Finally, as discussed in more detail below, the Islander East project would not significantly increase the reliability of the infrastructure in the region above its already high level, and there are alternative approaches that provide equal or better system enhancement at lower environmental costs.

The Need for the Islander East Pipeline: Imaginary Demand and a Misrepresentation of the Pipeline System

Much of the argument made by Islander East in its February 10 filing was related to (1) the need to increase the delivery of natural gas to Long Island and (2) the desirability of enhancing the security and reliability of the natural gas transmission system that serves Long Island, increasing the competition among transmission companies that serve the market for natural gas on Long Island, and diversifying sources of gas available to Long Island customers. Examination of the evidence provided to support these reasons reveals it to be weak or inaccurate.

Need

Islander East rests its arguments related to market demand on the four precedent agreements that it has negotiated and submitted to the Federal Energy Regulatory Commission (FERC) in support of its application. Several considerations suggest that Islander East has overstated the need to increase natural gas delivery capacity to Long Island.

First, available evidence suggests that the market identified in its application to FERC represents imaginary or displaced demand, not the need for additional new supplies of gas on Long Island. Four shippers signed precedent agreements with Islander East:

- | | |
|---|-----------------|
| ➤ KeySpan Energy Delivery New York | 49,500 dTh/day; |
| ➤ KeySpan Energy Delivery Long Island | 60,500 dTh/day, |
| ➤ Brookhaven Energy Limited Partnership | 90,000 dTh/day |
| ➤ AES Endeavor | 60,000 dTh/day |

Of these, AES Endeavor has not begun the permitting process for this plant and is unlikely to do so, given the June 18, 2002 announcement by AES that "because of its deteriorating financial condition, it would make no new investments beyond what it is already committed to." Brookhaven Energy LP testified that it can procure sufficient natural gas with only a limited modification to the existing KeySpan local distribution system and no additional pipelines (see page 9-2 of Brookhaven's submission to NYS regulatory agencies, attached below). "The only upgrade that is not already in Keyspan Energy's construction plan is a 2.3-mile-long upgrade along Commercial Street in Garden City, Nassau County, adding a 24" pipeline adjacent to an existing 20" pipeline." Note that Garden City, the location of the upgrade identified in the Brookhaven Energy filing, is well west of the termination of the Iroquois pipeline in Commack, NY, but almost due north of the termination of the Transco Cross Bay pipeline in Long Beach, NY, about equidistant from the north and south shores of Long Island at that

point. Thus, this upgrade is likely to be related to delivery of gas from the Transco pipeline and not from the Iroquois pipeline.

Second, Cross Bay Pipeline Company, L.L.C., a partnership of Duke Energy (a partner in the Islander East project), Keyspan (a partner in the Islander East project) and Transco, informed FERC on December 7, 2001 (FERC document # 2228517) that it would not accept the Commission's certificate for the Cross Bay project, in part because **"the market targeted by the Cross Bay project has not materialized"** (emphasis added). The fact that little more than a year ago, there was not enough demand in the areas served by KeySpan Energy Delivery New York and KeySpan Energy Delivery Long Island to justify proceeding with the 125,000 dTh/day Cross Bay project, which FERC lauded as supplying anticipated growth, relieving constraints on other New York area pipeline systems, and enhancing the reliability of existing gas service with "minimal impact on the environment" (97 FERC ¶ 61,165 (2001)), raises questions as to the credibility of the precedent agreements with the two KeySpan subsidiaries.

- Finally, Iroquois Gas Transmission System, which owns one of the two existing pipelines to Long Island, submitted testimony to FERC that disputed Islander East's market estimate. The realistic nature of that analysis is supported by the decision of Iroquois to withdraw its application for a lateral pipeline from Milford, CT to Shoreham, NY, the same landfall that is proposed by Islander East, because of low anticipated demand.

System reliability

Islander East and FERC base their argument that the Islander East project enhances system reliability/security on the false assertion by Islander East, the New York State Public Service Commission, and FERC that there is only one interstate pipeline (Iroquois) that delivers gas to eastern Long Island. This assertion ignores the reality that **KeySpan receives gas that is delivered through two pipelines, the Iroquois pipeline and the Cross Bay pipeline.** In fact, according to the material on fuel availability submitted by Brookhaven Energy LP (see attached Brookhaven submission, page 9-5), KeySpan receives nearly five times more gas through the Cross Bay pipeline (83% of its supply) than through the Iroquois pipeline (17% of its supply).

The reliability argument also ignores/dismisses the importance of the interconnected nature of the existing gas transmission pipeline system in the Northeast and specifically in Connecticut, which already provides the regional distribution system with the desired redundancy. All three interstate pipeline companies that serve the region (Iroquois, Duke/Algonquin, El Paso/Tennessee) interconnect with one another within an area of about 15 mile radius (Iroquois/Algonquin in Brookfield, CT, Algonquin/Tennessee in Wallingford, CT, and Iroquois/Tennessee in Shelton, CT). These interconnections are just upstream of where the existing Iroquois pipeline enters Long Island Sound in Milford to cross the Sound to Northport, NY. A lateral pipeline could run from existing taps in the Iroquois pipeline two miles offshore of Milford, CT, to landfall in Shoreham, NY. Existing and proposed compressor plants and looping allow the transfer of gas between systems. Should a segment of any single system fail upstream of the Shelton interconnection, these interconnections will allow the transfer of gas between systems to circumvent the failed segment. Furthermore, the pipeline between Shelton and Milford

is the newest component of the regional infrastructure, and thus the least likely to fail. It is also rated to operate at a pressure (over 1200 psi) that is much greater than that proposed for the Islander East project (less than 900 psi), allowing it to transport significantly more gas.

Finally, there is cause to question the long-term reliability of the Islander East system, were it to be built. It incorporates existing 10" and 16" Algonquin pipelines from the Algonquin main line in Cheshire, CT, to a metering station in North Haven, CT, where installation of the new 24" diameter pipeline will begin. The total cross-sectional area (and thus the volume at constant pressure) of these two pipelines (280 sq in) is far surpassed by the cross-sectional area of pipelines proposed to take gas from North Haven (500 sq in for the 24" IE pipeline and the existing 8" line to the Guilford metering station; the figure does not include Southern Connecticut Gas Co.'s local distribution lines that take delivery in North Haven). The 45% drop in pressure that results from going from the smaller capacity system to the larger capacity system is in addition to the pressure drop that normally occurs as distance from the compressor increases. To compensate for this disadvantage, these smaller and older pipes will be required to operate at the highest pressures within the system, raising concerns about their ability to stand up under these demanding operational conditions. They will also be a bottleneck if the Islander East pipeline were to be required to carry gas for customers other than those already contracted for Islander east capacity in the event of a failure elsewhere in the distribution system. Thus, the Islander East does not represent a significant increase in the reliability of the regional system.

Market competition

There is already significant competition among companies transporting gas to Long Island. Again according to materials submitted by Brookhaven Energy LP to New York regulators (see attached Brookhaven submission, page 9-5), there are already four gas pipeline companies that ship gas to Long Island via the Cross Bay and Iroquois pipelines.

Williams-Transco (Cross Bay pipeline)	58.5%
Texas Eastern Transmission Corporation (via Transco)	24.4%
Iroquois	9.7%
Tennessee (via Iroquois)	6.1%

(Note that Tennessee, whose system operates at the lowest pressure of the three pipelines that interconnect in Connecticut, is still able to ship significant quantities of gas through the Iroquois pipeline, which operates at the highest pressure of the three.)

It is questionable at best to assert that the addition of a fifth company improves the amount of competition sufficiently to justify the damage to coastal resources that will result from the installation of the proposed Islander East pipeline. The best case scenario will result in damage to tens of acres of productive shellfish beds that will take years to recover if they ever do, as well as the degradation of coastal wetlands that are part of a Land Trust-, Town-, and State-owned preserve. In the event that weather or the actual site conditions are other than what Islander East hopes for, the damage will be much more extensive and the likelihood of recovery much less. Furthermore, as discussed below, there are available alternative routes that are likely to be much less environmentally damaging.

Diversifying sources of gas

It is misleading to state, as Islander East has, that only the Islander East project can provide the benefit of the delivery of gas from the Sable Island fields in Nova Scotia. Duke Energy is already supplying Sable Island gas to its customers in eastern Massachusetts and elsewhere in the region through interconnections with the Tennessee Gas Pipeline Company system. Gas is transferred from Duke's Maritimes & North East system to the Tennessee system through an interconnection in Dracut, MA, and back to Duke's Algonquin Gas Transmission system through an interconnection in eastern Massachusetts and potentially through a second interconnection in Wallingford, CT. Duke will presumably continue this use of the Tennessee system at least until Duke's Hubline Project, currently under construction near Boston, directly connects the Maritimes & North East and Algonquin systems. Even after that time, the Tennessee system represents an alternative means of transporting Nova Scotia gas to markets in southwestern New England and, via the Iroquois pipeline, Long Island.

More importantly, the gas that would actually pass through the Islander East pipeline would mostly come from sources other than the Sable Island fields. A recently completed study of the ability to meet future gas demands for electricity generation in New York State, prepared for the New York State Energy Research and Development Authority and New York ISO by Charles River Associates, indicated that little Sable Island Gas actually reaches New York. The benefit of Sable Island gas to New York is that it meets the demand in New England that had been previously filled by gas from sources to the south and west of the region (displacement of demand). This displaced gas is thus available to meet demand in New York, and will reach New York (Long Island) markets through pipelines that follow more direct routes than those through New England (Connecticut).

The Environmental Impacts of the Islander East Project Are Excessive

The Thimble Islands area, where Islander East proposes to enter Long Island Sound, provides exceptional habitat diversity for fish, marine invertebrates, birds and marine mammals. It also is a highly valuable shellfish area, in terms of both active operations and potential future activity. The Islander East pipeline will have a major negative impact on all of these coastal environmental resources.

Construction activity at the Connecticut landfall and adjacent near-shore waters

This is potentially the most serious environmental impact of the entire project, and the analysis of the environmental impact by FERC in the Final Environmental Impact Statement (FEIS) was woefully deficient, in part because Islander East failed to provide an analysis of sediment transport in the area or a plan for an alternate crossing method to be used if HDD fails, and in part because the FEIS ignores the likely impact of typical winter weather on sediment berms created between the HDD break-out point (MP10.9 if all goes as proposed) and MP12. The suspension of sediment by dredging and by erosion of the proposed spoil mounds, and the sediment's transport onto working shellfish beds and other sensitive areas can be anticipated to have a serious negative environmental impact under any but the best-case conditions assumed by Islander East and FERC.

Sediment transport in the waters along the route of the pipeline is dominated by turbulent flows, and this is particularly true of the shallow near-shore areas around the Thimble Islands. In the area from MP10.2 to MP12, sediment is eroded or sorted and

reworked. Studies by U. S. Geological Survey scientists (Signell, R.P., List, J.H., and Farris, A.S., 2000. Bottom Currents and Sediment Transport in Long Island Sound: A Modeling Study. *Journal of Coastal Research*, 16, 551-566; Signell, R.P., Knebel, H.J., List, J.H., and Farris, A.S., 2001. Physical Processes Affecting the Sedimentary Environments of Long Island Sound. *Proceedings, 5th International Conference on Estuarine and Coastal Modeling*, M.L. Spaulding and A.F. Blumberg, Eds., ASCE Press) indicate that fine sediments in these shallow areas are regularly resuspended by tidal and wind-induced currents and that storm-related events that occur 10-20 times per year can redistribute fine sediments in waters shallower than 20 meters (more than 60 feet). The same studies indicate that **wind driven bottom wave orbital velocities in this area exceed the speed necessary to resuspend fine grained muds more than 10 percent of the time.** Data on wind distribution over a 12 year period (Nov 1984 - Dec 1996) from the NOAA Ambrose Light meteorological station cited in the USGS studies indicate that “wind events having wind speeds of at least 10 m/s [over 20 mph] occur about 10-20 times a year **chiefly during the winter months**” when the mounds of sediments will be in place (emphasis added). Even information supplied by Islander East shows that the area from the HDD breakout to MP 12 is subjected to frequent wind and wave conditions sufficient to raise significant amounts of sediment (surface and bottom) from a natural bottom.

The application submitted by Islander East to the Connecticut Department of Environmental Protection included side-casting the dredged sediment to create 10-12-foot high spoil berms that would extend for more than a mile, rise to within a few feet of the surface at low tide and contain tens of thousands of cubic yards of fine sediment. Mounds of dredged sediment are more susceptible to erosion than is stable, undisturbed bottom. The mounds are exposed to sheer forces and turbulence that the undisturbed bottom does not experience. In fact, the mounds create the turbulence that will eat them away as currents and waves flow over and around them. (Recognizing the reasonable reluctance of state and federal regulatory agencies to permit side-casting, Islander East first reduced the maximum height of the proposed berms and has apparently now proposed to store at least some of the sediment on barges. However, they still propose to engage in more than a mile of dredging and back-filling that will itself create large amounts of suspended sediment and destabilize the sea bottom, making it more susceptible to resuspension and dispersion during the frequent winter storm events in future years. In contrast, the near-shore dredging required for connecting to the Iroquois pipeline would be limited to an area about 60-70 feet across and 5-10 feet deep, and occur in water greater than 20 feet deep. Mechanical plowing could begin at the point where the lateral pipeline attaches to the existing pipeline. A much smaller quantity of dredged sediment would be stored on barges.)

Productive shellfish beds will also be damaged by the repeated setting and repositioning of anchors, and by the sweeping of the anchor cables across the bottom. Even with the use of cable buoys to keep the entire length of the cable from reaching the bottom, these effects will impact much more bottom than the actual dredging.

Impacts of horizontal directional drilling (HDD)

Installing the land-to-sea pipeline transition by horizontal directional drilling, if successful, will reduce the need for dredging in shallow tidal flat areas, but carries the potential for environmental damage of a different kind.. Release of drilling mud, either

at the point of break-out at the end of the HDD path or when the drill encounters fractures in the bedrock that communicate with the surface of the sea bed, will damage the marine environment in at least two different ways. First, the mud will smother sessile organisms in the immediate area of the release where the coagulated bentonite clay settles. Additional damage could be caused by toxic contaminants present in the drilling mud, especially but not limited to barium sulfate. Testimony presented to the Connecticut Siting Council showed that individual preparations of bentonite differed in their effects on marine organisms, which in some cases are lethal.

The impact of disposing of the water used in the drilling mud and of the drilling mud itself is also a matter of concern. The Environmental Impact Statement prepared by FERC stated that excess drilling mud could be incorporated into the soil in an upland area or disposed of at an appropriate facility, and that water left over from the drilling mud will be discharged into a well-vegetated upland area or into an energy dissipation/sediment filtration device at the site. The site of the HDD at the Connecticut landfall is surrounded by a small residential area and an environmentally important and sensitive natural coastal preserve, components of which are owned by the Branford Land Trust, the Town of Branford, and the State of Connecticut. Disposal of drilling mud and water at this site would have unacceptable consequences for this sensitive coastal resource. The environmental impacts of soluble and/or leachable additives present in the commercial preparation of bentonite to be used have not been evaluated, nor have those of hydrocarbons and other contaminants that may accumulate in the drilling mud during its prolonged contact with the drill rig machinery. No details of where the excess water will be discharged at the Connecticut landfall site have been provided. If salt water is used, as was indicated in the Proposed Findings of Fact filed with the Connecticut Siting Council, it cannot be discharged onto vegetated upland areas. On the other hand, direct discharge of potentially contaminated water directly back into Long Island Sound or nearby tidal wetlands is likely to have other damaging impacts to coastal and marine resources that are to be protected under the Coastal Zone Management Plan.

Alternative to the HDD is highly damaging to coastal resources

Islander East has not yet submitted an alternative plan for entering Long Island Sound at Branford by conventional means should the HDD fail, nor is there an explicit definition of what constitutes failure of the HDD, including the number of attempts that are acceptable. However, examination of the proposed route of the pipeline reveals only two options for a conventional entry into the Sound that would not require a major readjustment of the route. These are shown by the broken orange lines on the attached maps, entitled "Possible Non-HDD Entry Routes?". Both options would require trenching through more than 3500 feet of tidal flats and shallow sea bottom, increasing the amount of productive shellfish beds that would be destroyed and magnifying the likely sediment dispersion into Stony Creek Harbor and the inner Thimble Islands. In addition, each carries its own unique environmental impact.

One of the likely routes passes just to the west of the Tilcon shipping facility, closer to the residences on Juniper Point, and crosses under the channel used by barges accessing the Tilcon facility. Given FERC's deference to avoiding residences whenever possible and the anticipated and justifiable safety concerns about the possible impact of a swamping loaded barge on a high pressure gas pipeline buried below the channel, it seems unlikely that this alternative would be selected if another were available.

The second alternative route passes through the tidal wetlands to the east of the Tilcon facility. The route would have to pass well to the east of the Tilcon loading facility in order to avoid a series of settling ponds that capture the fine particles washed from the crushed stone at the Tilcon terminal prior to loading the barges. The exact route across the marsh is of course speculative, but it might start as far north as the Amtrak rail line and cross the entire marsh and the nature trail that crosses the marsh from Stony Creek to Pine Orchard. Once across the marsh, the pipeline would cross tidal flats and skirt the inner Thimble Islands where numerous rocks would present challenges to conventional trenching that might require blasting.

Because of the sensitive coastal resources in the immediate area of the projected site of the HDD entry, Islander East should submit the plans for the conventional entry to Long Island Sound as part of the application for a permit for the entire project in order to allow the careful evaluation of the conventional alternatives and the determination of if there is indeed an acceptable means by which the pipeline can enter the Sound if the HDD fails.

Impacts on marine mammals

The Islander East construction could have adverse impacts on marine mammals that winter in Long Island Sound. These are primarily harbor seals but gray, harp and hooded seals have also been recorded by CT DEP and other conservation organizations in Long Island Sound in recent years. Harbor and gray seals have been found in the Thimble Islands, one of the few areas along the Connecticut shore with such a high density of favorable haul-out sites. Construction activities are likely to drive these marine mammals from their haul-out sites, which would constitute harassment under the Marine Mammals Protection Act.

Construction activity in waters deeper than 20 feet - contaminated sediments

Islander East's sampling frequency of the remainder of the route between the Connecticut and Long Island landfalls (once per mile) is not sufficient to detect potentially contaminated sediments that could cause serious damage if disturbed by the installation of the pipeline. This conclusion is supported by concerns voiced by the US Dept. of Interior during the environmental analysis conducted by FERC. The samples analyzed by Islander East account for less than 0.01% of the length of the route and an even smaller fraction of the total area that would be disturbed. U. S. Geological Survey studies show average metal levels to be 1.5 to 5 times higher than background. For example, a map on the relevant USGS web page (USGS Studies in Long Island Sound – Geology, Contaminants and Environmental Issues; <http://woodshole.er.usgs.gov/project-pages/longislandsound/index.htm>) shows levels of copper at individual sampling sites to be within the ERL (Effects Range-Low) and ERM (Effects Range-Medium) ranges along nearly the entire route of the pipeline. Samples should be taken at least once per half mile, and when individual samples show levels equal to or greater than the ERL, a greater frequency should be required to determine conclusively that there are no nearby areas of high contamination that will be disturbed by the installation of the pipeline. There should also be an analysis of the potential for increasing mobilization or bioavailability of contaminants that are moved from anoxic/hypoxic conditions to oxygenated water.

In addition to the inadequacy due to infrequent sampling along the route, the criteria used to estimating the potential for damage from contaminants that were found in

the samples are confusing and potentially misleading. According to a report prepared for Islander East by TRC Environmental Corp. and submitted to FERC, ERL, ERM and ERH values are based on the percent of studies that indicate adverse effects, not on the nature, severity or frequency of those effects. That is, some adverse biological effect was found at or below this concentration in a certain percentage of the studies. Without knowing the biological effects and organisms that were studied and the severity or frequency of the effects found, it's impossible to know how serious the consequences of disturbing the contaminated sediments might be. For example, there is great concern about the health of lobster populations in Long Island Sound. Did all the studies examine the effects of contaminants on lobsters? At what stages of lobster development? For how long an exposure? What characteristics of lobster biology were monitored and for how long after exposure to the contaminant? What percentage of the study population had to be affected for the result to be evidence of an effect? Without knowing the answers to these questions, it is not possible to determine if a particular contaminant stirred up by the pipeline installation poses a threat to lobsters (or even if there are studies that could answer that question). Even if some concentration of a contaminant had been reproducibly found to be critically toxic at a particular stage of a particular organism's life cycle, that concentration could still fall within (or below) the ERL range for the contaminant because the other studies in the database were examining effects on other organisms or at stages of development where sensitivity was not as acute.

No mitigation is proposed for impacts to coastal resources

Islander East insists that no mitigation is necessary because no wetlands are being filled. This is clearly in contradiction to statements made by both the Environmental Protection Agency and the Department of Interior during the process of preparing the Environmental Impact Statement. The lack of mitigation is inconsistent with the objectives of the Coastal Zone Management Plan.

Alternatives Are Available for Increasing the Supply of Gas to Long Island

There are at least two alternative routes that could significantly increase gas delivery capacity to Long Island with less environmental impact to Connecticut's coastal resources. These are (1) to upgrade the Transco Cross Bay pipeline to increase the capacity by 125 dTh/day, and (2) to construct a lateral pipeline from the existing Iroquois pipeline offshore of Milford to Shoreham (Wading River), NY, as proposed by Iroquois.

- **The Cross Bay alternative** – The Cross Bay project clearly must be considered as an alternative, given that it would significantly increase gas delivery capacity to Long Island and has already been proposed by a partnership that included both principals in Islander East. As designed and certificated by FERC on November 8, 2001 (97 FERC ¶ 61,165 (2001)), the Cross Bay project would upgrade an existing pipeline between New Jersey and Long Island so that it could provide 125,000 decatherms/day of new firm transportation service from New Jersey to Long Island (more than the initial Precedent Agreements of Islander East with the two KeySpan companies), with construction of only one compressor plant and no new pipeline. Upgrading the Cross Bay pipeline would also make a much greater contribution than the Islander East project to "improv[ing] America's aging energy infrastructure", a goal of the National Energy Policy Development Group cited by Islander East (page 9 of Islander East's filing), since the Cross Bay pipeline

currently carries over 80% of the gas delivered to Long Island. The Final Environmental Impact Statement for the Islander East project improperly dismissed consideration of the Cross Bay project as an alternative to Islander East on the grounds that it would not be able to provide gas to eastern Long Island. This is factually inaccurate, given that Brookhaven Energy LP has reported to New York regulatory agencies that it will be able to receive gas via the Cross Bay pipeline (see above). The Cross Bay pipeline is in fact better located to transport the gas that the Charles River Associates report indicates will be available as a result of displacement from the New England market by Sable Island gas.

As FERC noted in its November 8, 2001 order certifying the Cross Bay project, the benefits provided by the Cross Bay project could be achieved “with minimal impact to the environment.” The fact that the partnership of the Islander East principals (Duke Energy and Keyspan) and Transco informed the Commission on December 7, 2001 (FERC document # 2228517) that it would not accept the Commission’s order, in part because “the market targeted by the Cross Bay project has not materialized” should not eliminate it from consideration.

The Milford-to-Shoreham route – In the Final Environmental Impact Statement prepared by FERC for the Islander East application, the FERC analysts identified the alternative of building a lateral pipeline from taps in the existing Iroquois pipeline about two miles offshore of Milford, CT to the same Long Island landfall as that proposed by Islander East as an environmentally preferable alternative. The reasons given were that the length of the pipeline across Long Island Sound was shorter (17 miles vs 22 miles for the Islander East pipeline, resulting in less disruption of the seabed), that it avoided more shellfish leases, and that it involved no impact onshore in CT other than air quality and noise from an additional compressor in Milford.

Islander East has tried to argue that the Milford route is not an alternative because no one is proposing to build a pipeline along this route. The absence of a detailed proposal is irrelevant to whether the route is preferable. The Army Corps of Engineers (ACOE) is proscribed from awarding a permit to any but the least environmentally damaging route. In pointing this out to FERC in a June 2002 letter, ACOE explicitly commented that it would be unfortunate if FERC granted a certificate to a project for which ACOE could not grant a permit. In its comments on Islander East’s appeal to the Secretary of Commerce, ACOE again noted that it has concerns about the Islander East project “centered on potential environmental impacts and the availability of less environmentally damaging alternatives.” Islander East should be required to use the environmentally less damaging alternative, rather than being allowed to install its pipeline through the environmentally sensitive coastal and off-shore areas in Branford.

Opinions of Other Regulatory Agencies

Islander East implied in its initial brief that the Connecticut Siting Council, after considering evidence presented by Islander East and parties that would be affected by the pipeline, gave its approval to the Islander East project (see page 25 of Islander East Brief, “E. Connecticut Siting Council Approval of the Islander East Project”). This inference by Islander East is contradicted by the proceedings of the Siting Council members at the

August 1, 2002 meeting at which the Siting Council voted to grant a certificate of Environmental Compatibility and Public Need. (A videotape of that meeting is available from the Connecticut Siting Council.) That vote was preceded by a lengthy discussion in which several Council members objected to approving the project, and agreed to grant a certificate only when advised by the Deputy Attorney General who serves as legal counsel to the Siting Council that the only way that it could influence conditions placed on the project would be to grant a certificate. In particular, members stated that the Iroquois proposal for a pipeline from Milford, which at that time was still before the Siting Council, was preferable to the Islander East project. At a subsequent meeting (September 5, 2003) when the order was signed, discussion again focused on the lack of approval of the project and the order had to be redrafted in order to depart from the normal language and avoid the use of the word "approves". Thus, the decision by the Connecticut Siting Council did not constitute approval as implied in the Islander East brief. This conclusion is supported by a recent letter from the Chairman of the Connecticut Siting Council to the legal counsel for Islander East, which is attached.

In conclusion, none of Islander East's arguments, when carefully examined, provides a compelling reason for reversing the finding by the Connecticut Department of Environmental Protection that the Islander East Pipeline project is incompatible with Connecticut's Coastal Zone Management Plan. No national security interest requires the construction of the pipeline. The project fails to significantly enhance either system reliability or market competition. Construction of the pipeline will cause significant irreversible damage to the coastal resources of this part of Long Island Sound, an environmentally rich component of this nationally important estuary. Finally, there are less environmentally damaging alternatives available to accomplish the objective of increasing gas transportation capacity to Long Island, should that in fact be necessary. The Secretary of Commerce should therefore reject Islander East's appeal of the decision of the Connecticut Department of Environmental Protection.

Attachments

Section 9 of Brookhaven Energy Project Article X submission

Map of possible non-HDD alternatives to enter Long Island Sound in Branford Connecticut

Letter from the Connecticut Siting Council

Section 9
of
Brookhaven Energy Project
submission

9. FUEL FACILITIES

9.1 Description of the Proposed Gas Pipeline Interconnection

Interconnection, Route, Pressure

This section addresses Stipulation 4, Clause 1 (a), which requires a detailed description of the proposed gas pipeline interconnection(s), including interconnection facilities, pipeline route, size, operating pressure, and the need for new on-site compression facilities.

The natural gas pipeline to serve the Project will be a dedicated service lateral that will interconnect with the Keyspan Energy pipeline located on the south side of the Long Island Expressway. The interconnection facilities will include the pipeline lateral, valves, regulators, metering equipment, service taps and related pipeline facilities to assure safe and reliable service (e.g., fencing and pipeline markers).

The pipeline lateral is proposed to follow along the east side of Sills Road and into the Project site. From the existing pipeline, the lateral pipeline route follows approximately 1,900 feet on Sills Road adjacent to the Project site boundary. The route of the pipeline lateral is shown in [Figure 9-1](#). A typical Keyspan design detail is shown in [Figure 9-2](#). Based on Project operating requirements, the approximate nominal diameter of the lateral pipeline will be 16 inches, with a maximum allowable operating pressure of 350 psig. Booster compressors will be installed on-site to raise the gas pressure to meet the combustion turbines' requirements. The gas compressors are expected to be installed in a pre-engineered building with insulated walls, to be located west of the combustion turbines. The gas compressors will be electrically driven. They will boost the Project's natural gas supply pressure to approximately 750 psig. Individual compressors are sized to serve one unit and are dedicated to that unit.

Construction, Operation and Ownership

This section addresses Stipulation 4, Clause 1 (b), which requires an identification of who will construct, own and operate the proposed gas pipeline interconnection.

The pipeline lateral will be built, owned and operated by Keyspan Energy, up to and including the metering station on the Project site. The pipeline lateral will be constructed by certified contractors in accordance with all applicable safety requirements. Keyspan Energy will likewise install and own the meter, valves and related facilities. The compressors and all other natural gas-related equipment downstream of the metering station will be built, owned, and operated by Brookhaven Energy.

Volume of Gas Required to Serve the Project

This section addresses Stipulation 4, Clause 1 (c), which requires an analysis of the peak hour, peak day, seasonal and annual natural gas requirements of the Project.

Peak hour, peak day, seasonal and annual natural gas consumption depends on the load at which the Project is operating, the ambient temperature, and whether or not steam injection is being used. The peak hour consumption is 3,744 Dth. The peak day consumption is based on 24-hour operation during winter hours, or 89,992 Dth.

Seasonal consumption rates can be estimated as follows. Without steam injection, considering 24-hour operation at 100% load, between 79,344 Dth (summer condition of 80°F) and 89,992 Dth (winter condition of 15°F) would be consumed on a given day. Assuming a very hot summer day (97.5°F), with 16 hours of steam injection, the consumption rate would be 87,024 Dth. Annual consumption, conservatively estimated on the basis of 100% load at all hours of the year (except seven days when each unit will not operate), and with 360 hours of steam injection, is approximately 28,543,824 Dth/year or 81,321 Dth/operating day.

LDC and Capacity Issues

Impact to LDC, Upgrades

This section addresses Stipulation 4, Clause 1(d), which requires an analysis of impacts to the local natural gas distribution company (LDC), including a description of upgrade requirements.

Because the Project will receive gas from the adjacent LDC infrastructure, upgrades are necessary in order to avoid adverse impacts on LDC distribution capability and reliability. Brookhaven Energy requested, and Keyspan Energy completed, a flow study that addresses what additional upgrade requirements are necessary to provide service to the Project without affecting delivery to other customers. The study included both 30-day interruptible and firm gas transportation. Physical upgrades required for the two scenarios are the same. All upgrades would be within existing Keyspan Energy customer-serving pipeline corridors, and none would create new rights-of-way.

The only upgrade that is not already in Keyspan Energy's construction plan is a 2.3-mile-long upgrade along Commercial Street in Garden City, Nassau County, adding a 24" pipeline adjacent to an existing 20" pipeline. Since this upgrade is not a Project interconnection (it is not for the Project's exclusive use *and* it creates no new rights-of-way), its environmental impacts are outside of the agreed-upon scope of the Application. However, in order to address impacts as completely as possible, a summary of its expected minimal environmental impacts is presented in Section 9.3 below.

Brookhaven Energy notes that Keyspan Energy is currently implementing and planning an upgrade program that is independent of the proposed Project. As part of its ongoing program, Keyspan will be installing 12.8 miles of 20" diameter pipeline from River Road in East Yaphank to Nugent Drive in Riverhead. This is the existing main pipeline route to eastern Long Island. Presently, there is an 8" diameter pipeline serving this corridor. The upgrade is proposed to provide adequate gas supply to existing residential customers, and will be conducted in three phases. Phase I, scheduled to take place in 2001, is the installation of 3.4 miles of pipeline from River Road to Weeks Ave. Phase II, scheduled to take place in 2003, is the installation of 6.6 miles of pipeline from Weeks Ave. to River

Road in Calverton. Phase III, scheduled for 2005, is the installation of 2.8 miles of pipeline from River Road in Calverton to Nugent Drive in Riverhead. It is possible that the construction and operation of the Project could affect the timing of these upgrades, but it is not expected to affect their scope. While all of these projects are scheduled for construction over the next five years, construction schedules are revised annually by Keyspan Energy to reflect development of actual load patterns on the local distribution system. Note that all of the upgrades described above were planned prior to the announcement of the Brookhaven Energy Project and will occur in previously disturbed rights-of-way. Thus, they are not interconnections, as defined in the Stipulations.

9.2.2 Pipeline Capacity

This section addresses Stipulation 4, Clause 1(e), which requires, in part, a demonstration that there will be sufficient available pipeline capacity to support the requirements of the Project at the time of commercial operation.

The overall local gas system owned by Keyspan consists of the former Long Island Lighting Company and Brooklyn Union Gas systems. Together, these systems are served by four pipelines, and Keyspan holds long-term firm transportation contracts on all of them. The four pipelines are Williams-Transco, Iroquois, Texas Eastern Transmission Corporation (TETCO) and Tennessee Gas Pipeline (Tennessee). Keyspan also contracts for underground storage and owns peaking supplies (LNG facilities) to meet gas demand. Keyspan's delivery capability is outlined in Table 9-1.

Table 9-1: Keyspan Local Distribution Capacity

Company	Pipeline Capacity	Underground Storage	Peaking Supplies	Total Firm Capacity
	(MDth/day)			
Keyspan Gas West (formerly Brooklyn Union)	750	779	504	2,033
Keyspan Gas East (formerly Long Island Lighting Co.)	263	294	188	745
Total Keyspan	1,013	1,073	692	2,778

Note: Securities and Exchange Commission 10-K filing for 12/31/99

With its capacity contracts on interstate pipelines, Keyspan is able to purchase natural gas from both Canadian and domestic sources. Keyspan purchases gas on both a long-term basis and on a daily basis in the spot market. Also, it purchases gas at various pricing points along the systems, anywhere between the supply basins and the LDC "gate."

Keyspan's distribution of pipeline capacity on Long Island is as follows:

1. Transco	58.8%
2. TETCO (via Transco)	25.4%
3. Iroquois	9.7%
4. Tennessee (via Iroquois)	6.1%
Total	100.0%

Peak demand on the Keyspan Long Island system is typically between 300 and 400 MDth/day – approximately half of total firm capacity. Record demand days on the system have been as follows: 641 MDth on January 17, 2000 (86% of firm capacity), and 585 MDth on January 19, 1995 (78% of firm capacity).¹ If the Project were to purchase gas on a 365-day firm basis, it would constitute approximately 12% of the firm demand.

In order to ensure sufficient margins, Keyspan Energy has concluded that the Project should take deliveries equally from the Iroquois and Transco systems, and ensure a delivery pressure of 450 pounds per square inch (psi) at the Transco gate. This arrangement, together with the upgrades referenced above, would be sufficient to provide the necessary pipeline capacity to support the requirements of the Project.

9.2.3 Projected Gas Supply and Demand

This section addresses Stipulation 4, Clause 1(e), which requires, in part, a demonstration that there will be sufficient gas supply to support the requirements of the Project at the time of commercial operation.

Although the local distribution system, with the referenced upgrades, is sufficient to accommodate the Project, the long-term outlook for gas supply to Long Island is that there will be a substantial increase due to the addition of incremental gas deliveries from the Canadian east coast, specifically Sable Island supplies to New England markets. Since January 2000, approximately 400 MDth/day of new supplies from offshore Sable reserves have been delivered via the Maritimes and Northeast Pipeline to New England (at Dracut, Mass.). Planned expansions in offshore production levels (up to 1,000 MDth/day by 2010) have induced companies to search for gas markets beyond New England. This search has resulted in several proposals to construct pipeline expansions over to Long Island and the rest of the New York market.

A number of pipelines have filed or are proposing to file expansion projects with the Federal Energy Regulatory Commission. These expansions should directly increase the operational flexibility and reliability of natural gas as an electric generation fuel on Long Island. More than one of these projects is expected to proceed, which would mean that there would be ample pipeline capacity available to serve incremental loads. Table 9-2 lists the pipeline projects that could increase gas deliveries into Long Island.

With respect to natural gas demand, it is expected to increase as more power plants use natural gas for fuel. The current New York State Energy Plan includes a high demand growth case that assumes all new electric generation capacity needs within the planning horizon to the year 2016 will be met through new natural gas-fired generation units located in New York. The high-demand projection for 2016 is approximately 2,200 MMDth per year (see Appendix V-2). The Project's annual gas consumption (estimated at 28.5 MMDth/year in Section 9.1.3 above) is approximately

¹ Keyspan Energy Press Release, January 18, 2000.

2% of projected statewide natural gas demand in year 2006 (1400 to 1600 MMDth) and less than 1-2% of the 2016 demand (1500 to 2200 MMDth).

Table 9-2: Proposed Pipelines to Long Island

Project	Sponsor	Capacity (MDth/day)	Gas Source	Planned In-service
Islander East	Duke/Keyspan	250	Algonquin supplies and Atlantic Canada	Nov 1, 2003
East Long Island	Iroquois	160	Western Canada	Nov 1, 2003
CT Long Island	El Paso	450	Tennessee supplies and Atlantic Canada	Nov 1, 2003
Cross Bay	Williams/Duke /Keyspan	750	Gulf Coast	Dec 1, 2002

In conclusion, while the Project demand and other system growth can be accommodated under existing conditions with the upgrades described in Section 9.2.1, Long Island's gas supply is expected to increase dramatically prior to the period of Project operation.

9.2.4 Project's Gas Arrangements

This section addresses Stipulation 4, Clause 1(f), which requires an identification of the nature and extent of natural gas capacity contracts and transportation service as firm, interruptible or both.

The Project intends to use PSC-approved Keyspan Energy tariffs. The transportation services will include firm transportation, interruptible transportation, displacement, and exchange services to increase overall deliverability to the Project.

As a merchant facility, the Project may not have long-term electric sales agreements, nor is it likely to have fixed-price gas purchase commitments to producers or pipelines. The Project will be part of an integrated portfolio of generating facilities in the Northeast, which are owned or operated by subsidiaries of ANP. Its fuel supply will be provided from marketers selling gas from a diversified combination of geographic basins, such as Western Canada, mid-continent, Gulf Coast and Appalachia, as well as through new pipeline capacity being developed in Nova Scotia and northern New England.

Bundled services, including released pipeline capacity, exchange with other marketers and other portfolio supply positions, will be employed to provide supply and pipeline capacity from a variety of upstream and downstream resources. Brookhaven Energy notes that although it may not contract for year round firm transportation, based on the referenced forecasts and use of bundled services, it expects to obtain adequate supplies of gas to operate throughout the entire year.

In addition, affiliates of Brookhaven Energy currently own or have agreements in place for a portfolio of gas supply and firm transportation. Affiliates of the Project have 30,200 Dth/day of firm transportation on Algonquin Gas Transmission (AGT) that can access Brookhaven Energy via

secondary delivery point rights, pursuant to AGT's FERC tariff, into IGTS for further delivery to the Project via Keyspan Energy. Affiliates of Brookhaven Energy also have entered into firm transportation agreements for 50,000 Dth/day of firm transportation on Tennessee Gas Pipeline (TGP) that can access IGTS and Transco via secondary delivery rights. Finally, affiliates of Brookhaven Energy have entered into gas supply contracts for firm bundled delivery to points in Massachusetts via TGP and AGT for volumes of 43,000 Dth per day and 43,000 Dth per day, respectively. These two gas supply contracts allow affiliates of Brookhaven Energy to deliver that gas at alternate delivery points that could include Keyspan Energy for redelivery to the Project. Thus, affiliates of Brookhaven Energy own a portfolio of gas or gas transportation of up to 166,200 Dth/day that could be delivered to the Project. This is almost double the Project's expected maximum demand (approximately 90,000 Dth/day at 15°F).

As a merchant power plant operator, Brookhaven Energy may sell all or a portion of the electric output of the Project via gas "tolling" contracts. Tolling allows third parties to supply their gas to the Project and receive electricity in return for paying the Project a "tolling fee." Thus, Brookhaven Energy will not contract for all of its gas on a firm basis because it then may have to forego a potential tolling opportunity. The daily gas market provides gas for those willing to pay the most competitive price. If Brookhaven Energy does not "toll," the plant gas supply may be purchased in the daily gas market.

As described in Section 9.2.3 above, there are several proposals being made by different interstate pipeline companies to increase gas transportation capacity to Long Island. Because the Project will be a large consumer of natural gas, several of these entities have approached Brookhaven Energy. If one or more of these proposals moves forward, it will be subject to stringent and comprehensive review by the Federal Energy Regulatory Commission pursuant to Section 7(c) of the Natural Gas Act. In the event one of these projects becomes an alternate source of fuel supply to Brookhaven Energy, it will further enhance the reliability of the Project's fuel supply. Brookhaven Energy's use of any additional available pipeline capacity will be based on maintaining a low-cost, reliable fuel supply.

9.2.5 Compliance with PSC Interruptible Gas Service Order

On August 24, 2000, the Public Service Commission issued an order regarding the preparation for fuel switching by interruptible customers (Case 00-G-0996). The Commission was concerned that "warm weather associated with previous winter seasons had produced some interruptible customers who were unprepared for periods of cold weather and the possibility of interruptions. During the interruptions, many interruptible customers either remained on the system or attempted to purchase alternate fuel on the spot market." As a result, the Commission required gas utilities to ensure that their interruptible customers "have provable storage capacity" for their alternate fuels. Financial disincentives are included in the order for customers who do not cease to take gas deliveries when informed that they are being interrupted.

Because the Project has no alternate fuel, it will either purchase 365-day firm capacity or will be an interruptible customer. If gas supply to the Project is interrupted, Brookhaven Energy will cease to take deliveries. By so doing, the Project will comply with the PSC Interruptible Gas Service Order.

9.3 Gas Upgrade Environmental Assessment

This section addresses Stipulation 4, Clause 3, which requires an assessment of environmental impacts of any upgrades as specified in other stipulations and preamble.

As stated above, the only gas reinforcement that is not already in Keyspan Energy's construction plan is a 2.3-mile-long, 24"-diameter gas pipeline upgrade main under Commercial Avenue near Garden City, Nassau County, within the Town of Hempstead ([Figure 9-3](#)). There is presently a 20"-diameter pipeline in this corridor. Since this upgrade is not a Project interconnection as defined in the stipulations (it is not for the Project's exclusive use *and* it creates no new rights-of-way), it is outside of the agreed-upon scope of the Application. However, in order to address impacts as completely as possible, its environmental impact is presented here.

Refer to the attached aerial photograph ([Figure 9-4](#)), which illustrates the types of land use that exist near the pipeline upgrade route. The upgrade begins just west of the intersection of Oak Street and Commercial Avenue and follows Commercial Avenue east to Quentin Roosevelt Boulevard. Land use in this section is industrial/commercial with commercial businesses on the south side of Commercial Avenue and railroad tracks and industrial uses on the north side of Commercial Avenue. After crossing Quentin Roosevelt Boulevard, the pipeline would continue eastward along the edge of a railroad right-of-way and passing adjacent to the Mitchel Complex (military housing) and commercial office buildings to the north. After passing by the Mitchel Complex, the pipeline would cross Endo Boulevard, traverse parking lots associated with commercial buildings and then cross under the Meadowbrook Parkway. The pipeline would terminate at Merrick Ave, east of the Meadowbrook Parkway. On the basis of standard practices in the pipeline industry Brookhaven Energy is able to qualitatively describe the following environmental impacts from the proposed 2.3-mile gas upgrade:

Air

The pipeline upgrade will not require additional compression and thus air impacts are not expected. Airborne dust from construction work will be minimal as construction is expected to be a brief process and will be restricted to excavation and backfilling of a narrow trench.

Cultural/Historical

The pipeline will be placed under streets and in a previously disturbed railroad right-of-way. As such, the pipeline will not affect cultural or historical resources.

Land Use

The upgrade will constitute no new land use and will require no additional land area. The duration of construction is expected to last only a few weeks, thereby minimizing inconvenience to abutters. Once installed, the upgraded pipeline will not affect existing residential, commercial and industrial uses in the area.

Land uses within a mile of the upgrade include several institutions and large commercial complexes, and public areas. These include the Roosevelt Mall, the old Roosevelt Raceway, the American Ref-Fuel waste-to-energy plant, the Nassau Coliseum, Hofstra University, and Nassau Community College. Eisenhower Park and residential areas of Garden City are also within a mile of the upgrade (on the east and west ends, respectively). None of these more distant land uses would be pressed to make changes in land use patterns because of this upgrade, and thus would not be affected in an adverse way.

Noise

Noise associated with construction vehicles and tools will be of a short duration. Construction work will only occur during hours that are in accordance with Keyspan Energy's standard practices for pipeline maintenance and construction. Once installed, there will be no noise impact. Note that much of the area already has relatively high ambient noise levels associated with high volumes of traffic on the Meadowbrook Parkway as well as traffic on other streets in the area including Commercial Avenue and Stuart Avenue. Relatively high ambient noise levels are also a result of industrial uses along Commercial Avenue.

Appropriate safety measures will be taken during pipeline construction, consistent with Keyspan Energy standard practices for pipeline maintenance and construction.

Solid Waste

Any bituminous roadway material and other excavated materials that need to be removed as part of the work will be disposed of at an approved disposal site.

Terrestrial Ecology

The upgrade consists of installing a new pipeline that would follow under a paved street. No tree clearing or other removal of vegetation is anticipated. Thus, no impact to plant or wildlife habitat areas is anticipated.

Traffic and Transportation

The upgrade will require closure of a lane or lanes within the roadway. This work will be managed in accordance with Keyspan Energy's standard procedures for lane closure during pipeline maintenance and construction. Once installed, there will be no traffic impact.

Visual

The pipeline will be located entirely underground in streets and along an existing railroad ROW and thus will not result in visual impacts. The construction area will be resurfaced as appropriate.

Groundwater, Water Supply and Wastewater

If hydrostatic testing of the pipe is performed, it is expected that approximately 290,000 gallons would be necessary during the single testing event. It is anticipated that the water would be procured from a nearby water district and discharged under standard hydrostatic test discharge authorizations that are typical of such maintenance and construction.

Surface Waters and Wetlands

The section of Commercial Street and other areas where the upgrade would occur is not located in or near wetlands, and thus the upgrade does not appear to affect any surface waters or wetlands.

Conclusion

In conclusion, the proposed 2.3-mile upgrade to Keyspan Energy's local natural gas distribution system in Garden City, Nassau County, constitutes a minimal environmental impact of temporary duration, while providing lasting benefits by way of ensuring adequate gas supply to the Project and thus helping to lower Long Island's air emissions.

Note that the above assessment does not address the natural gas interconnection for the Project – the approximately 1,700-foot lateral between the Long Island Expressway South Service Road and the Project. That interconnection is assessed in greater detail together with the Project, its laydown area, and other interconnections, as applicable, within Sections 6 through 17.

9.4 Storage of Fuel Oil for Emergencies

This section addresses Stipulation 4, Clause 2. Clause 2 was developed in response to the Project's proposal – since eliminated – to store, transport, and use backup fuel oil. In the Preliminary Scoping Statement, one million gallons of oil storage were proposed. Prior to finalizing the stipulations and filing its air permit applications, Brookhaven Energy informed the agencies involved as signatories to the stipulations process, as well as local officials and interested parties, that backup fuel oil has been eliminated as a feature of the Project. Thus, this section addresses Stipulation 4, Clause 2 only to the extent it relates to the storage of minimal amounts of fuel oil for emergency generators and backup fire pump.

Use and Replenishment

Clause 2(a), (c), (d) and (e) required, respectively, the following.

- (a) *An estimate of the rate of fuel oil consumption at full power output.* This is no longer applicable.
- (c) *An estimate of the maximum period that the plant could burn oil without refueling.* This is no longer applicable.
- (d) *A description of the proposed method of oil delivery and on site oil delivery infrastructure or offsite interconnects and an estimate of the maximum rate of delivery, given the transportation methods and facilities proposed.* This is no longer applicable. Delivery of diesel for emergency equipment will occur approximately twice a year. Deliveries will be made by a private local oil vendor.
- (e) *An estimate of the expected frequency and duration of oil firing of the facility and a discussion of the assumptions and analysis used to arrive at this estimate.* This is no longer applicable.

Storage and Handling

Clause 2(b) addresses the storage capacity of any tanks, a description of secondary containment structures, and measures proposed to prevent, contain or clean up oil spills. Furthermore, Clause 2(f) requires Brookhaven Energy to submit a Spill Prevention, Countermeasures and Control (SPCC) Plan, per 40 CFR 112. Finally, Clause 2(g) requires applications for the appropriate state permits related to bulk fuel oil storage.

The only fuel oil storage at the Project will be small aboveground tanks associated with emergency diesel equipment: a backup diesel fire pump (to be operated in case power from the grid to the firewater pumping system is not available during a firefighting event) and two emergency diesel generators (which are designed to operate only in order to ensure safe shutdown of the plant in case power from the grid is not available; and during testing). Total on-site storage will be approximately 1,700 gallons. This fuel storage will include secondary containment in the form of 110% rupture basins for both the emergency diesel generators and the fire pump storage tanks.

Fuel delivery for the emergency diesel engines is expected to occur very infrequently because these units are only operated during emergencies and for testing. The emergency generator fuel tanks rest on concrete foundations, with the fuel filling connections being housed within the engine enclosure. The emergency fire pump fuel tank will be housed within a building with a concrete floor.

In order to comply with the requirements of Stipulation 4, Clause 2(f), Brookhaven Energy has included a draft SPCC plan in Appendix Z.

Stipulation 4, Clause 2(g) is applicable only if the Project includes storage of 400,000 gallons of fuel oil or more. In that case, the Project would be subject to Article 12 of the Navigation Law, Section 174 (licenses), 17 NYCRR 30 (Oil Spill Prevention and Control -- Licensing of Major

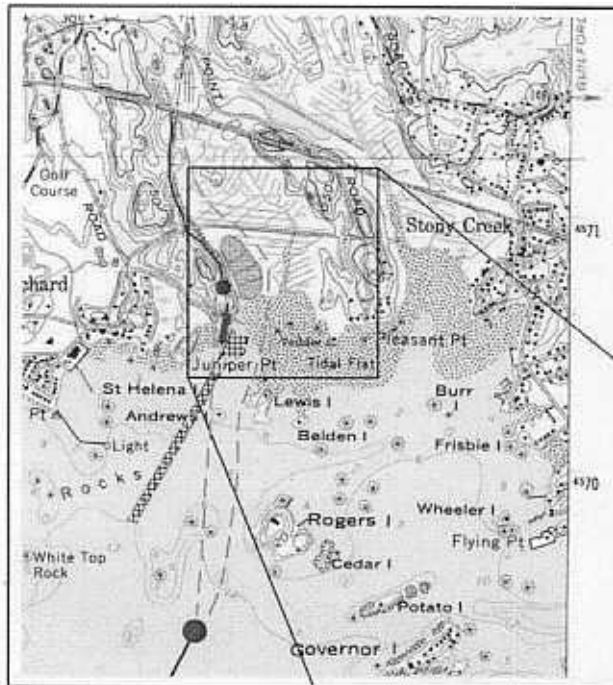
Facilities), 6 NYCRR 610 (Certification of Onshore Major Facilities), and 6 NYCRR 612 through 614 (Petroleum Bulk Storage Regulations).

By eliminating backup oil storage, the Project is no longer subject to some of these permitting programs. Specifically, it is not a major onshore facility and is not governed by the Navigation Law, NYSDOT's regulatory authority under 17 NYCRR 30 or NYSDEC's program under 6 NYCRR 610. However, because the total storage of fuel oil in day tanks associated with auxiliary equipment is 1,700 gallons (falling within a regulatory range between a minimum of 1,100 gallons and a maximum of 400,000 gallons), the Project's oil storage will be subject to NYSDEC's bulk fuel oil registration requirements, pursuant to ECL §17-1009, and the implementing regulations in 6 NYCRR 612 through 614. Key provisions of these statutes and regulations are as follows:




- Tanks must be made of steel and, if sited on-ground, underlain by impermeable barriers, with a leak monitoring system and cathodic protection for the bottom of the tank or equivalent;
- Exterior surfaces of all new aboveground storage tanks must be protected by a primer coat, a bond coat and two or more final coats of paint, or equivalent;
- All new underground piping systems must be made of steel or iron that is cathodically protected, fiberglass reinforced plastic or equivalent. However, all fuel oil storage day tanks will be directly connected to the emergency generating equipment, and no underground piping is expected.

It also should be noted that Articles 7 and 12 of the Suffolk County Sanitary Code include detailed permitting programs related to various types of hazardous materials, including all petroleum distillate oils. They are addressed in Section 10.4 (Compliance with Local Laws). According to the Suffolk County Department of Health Services, the County has, through appropriate NYSDEC filings pursuant to ECL §17-1017, obtained approval to enforce the Sanitary Code as a local law that provides "environmental protection equal to or greater than" the protection accorded through the above-described regulations. For that reason, this local law is not pre-empted by the state law.

Possible Non-HDD Entry Routes?



Legend

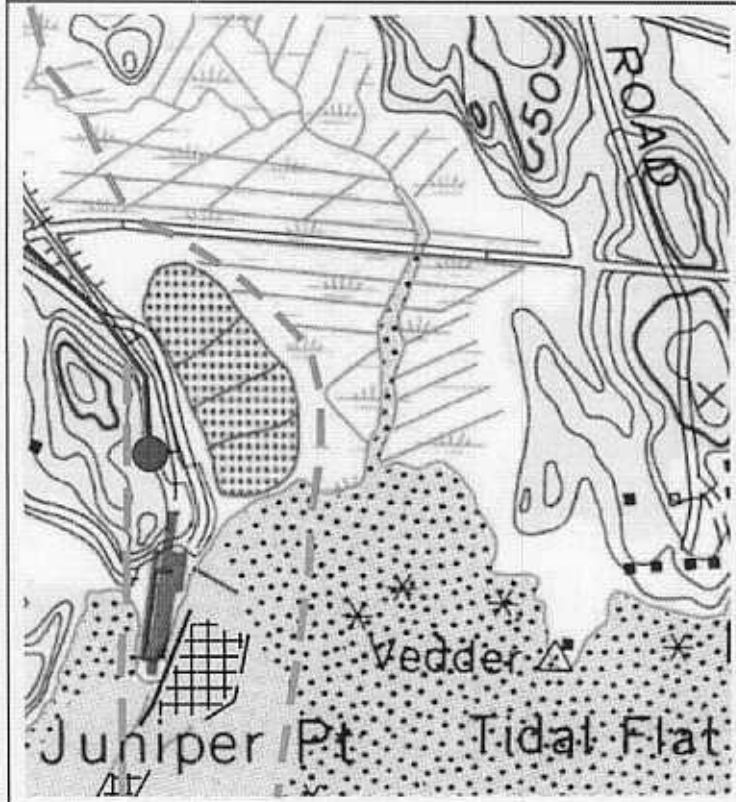
-  HDD start/exit
-  Tilcon channel
-  Tilcon settling ponds

Routes

Approved



Alternates?





STATE OF CONNECTICUT

CONNECTICUT SITING COUNCIL

Ten Franklin Square, New Britain, CT 06051

Phone: (860) 827-2935 Fax: (860) 827-2950

E-Mail: siting.council@po.state.ct.us

Web Site: www.state.ct.us/csc/index.htm

May 29, 2003

Anthony M. Fitzgerald, Esq.
Carmody & Torrance
195 Church Street
New Haven, CT 06509


RE: DOCKET NO. 221 - Algonquin Gas Transmission Company and Islander East Company, LLC application for a Certificate of Environmental Compatibility and Public Need for the construction, operation, and maintenance of a proposed new compressor station near East Johnson Avenue, Cheshire, Connecticut; a proposed new meter station adjacent to 67 Laydon Avenue, North Haven, Connecticut; and a new 24-inch diameter gas pipeline from the proposed North Haven meter station to Branford across Long Island Sound to the New York State line.

Dear Attorney Fitzgerald:

On August 1, 2002, the Connecticut Siting Council (Council) issued recommendations, in the above-referenced proceeding, to the Federal Energy Regulatory Commission (FERC) relating to recommendations that specify the preferred route, construction procedures, and environmental mitigation measures that will minimize and mitigate, to the fullest extent possible, adverse effects on the environment, and protect the citizens of the State of Connecticut. Through this action the Council sought to make clear its understanding that approval authority for such interstate natural gas transmission projects exists at the federal level, specifically with the FERC, and that the role of the Council is to aid in the approval and siting process by providing meaningful input and recommendations on behalf of the citizens of Connecticut.

The Council exercised great care through its deliberations in this matter to choose language that did not state that this application was either "approved" or "disapproved" by the Council. As such, we feel compelled to advise you that your client's reference to the Council having issued an approval on page 25 of Islander East Initial Memorandum of Law as presented to the National Oceanic and Atmospheric Administration is factually incorrect and potentially misleading. We respectfully ask that the appropriate persons make note of this and exercise care in future correspondence to more correctly reflect our actions in this proceeding.

Very truly yours,


Pamela B. Katz, P.E.
Chairman

PBK/SDP/laf

c: Service List